

Rapid Fielding Initiative Laser Target Location Systems

Viper Target Location System

The Viper Target Location System provides fire support teams and forward observers with daylight and limited night capability to observe and accurately locate targets for voice transmission of target data to the fire support command, control, communications, computers, and intelligence system.

Viper integrates a Vector Binocular Laser Rangefinder (BLRF) with a Precision Lightweight GPS Receiver (PLGR) equipped with PLGR+96 software to provide target grid coordinates.



The Vector BLRF is ruggedized and waterproof, and weighs about 4.75 pounds. Powered by lithium batteries, it has an approximate range of 4 kilometers (2.5 miles) on a clear day (20 kilometers/12 mile visibility). The Vector BLRF provides range, magnetic azimuth, and vertical-angle measurement to the PLGR, which calculates the location of the far target.

The Viper can locate targets to within 45 meters out to a range of 4 kilometers. The Viper system also includes a tripod, an AN/PVS-14 Monocular Night Vision Device and a Mounting Bracket for the AN/PVS-14. The AN/PVS-14 provides a limited night capability of 500 meters for the system.

Handheld Weight: 3.8 pounds

Total System Weight (daylight operation): 5.9 pounds

Total System Weight (night operation): 9.2 pounds

MK VII Target Locator

The MK VII Target Locator provides fire support teams and forward observers with daylight and limited night capability to observe and accurately locate targets for voice transmission of target data to the fire support command, control, communications, computers, and intelligence system.

The MK VII Target Locator is a handheld or tripod-mounted lightweight, laser, target locator, incorporating an eyesafe, laser rangefinder and a digital, magnetic compass to determine range, azimuth, and vertical angle from the observer to targets of interest.

When targeting data is sent to a PLGR, the system can compute and display the target location. Mark VII can range to tactical targets out to 5 kilometers on a 7-kilometers visibility day. Maximum rangefinding capability on a clear day is 19,998 meters. The Mark VII can locate targets to within 45 meters out to a range of 5 kilometers. An internal image intensifier is incorporated for night operations. Night capability to tactical targets is approximately 500 meters. The day optic is a 7.25-power monocular. Night optics are 4-power.



Handheld Weight: 4.2 pounds

Total System Weight: 6 pounds total carry weight

